

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A propylene polymer which satisfies the following requirements (1) to (4):

- (1) $\Delta H \geq 0.45 T_m + 22$, wherein ΔH is a heat of fusion (J/g) and T_m is a melting point ($^{\circ}\text{C}$) measured through differential scanning calorimetry;
- (2) $110 \leq T_m \leq 140$, wherein T_m is the melting point;
- (3) $T_h \leq 5$, wherein T_h is a half-value width ($^{\circ}\text{C}$) of the peak top of its elution curve, the elution curve being obtained in programmed temperature fractionation where a sample solution in o-dichlorobenzene is fractionated by raising the temperature from 0°C to 135°C at a heating rate of 40°C/hr ; and
- (4) an intrinsic viscosity $[\eta]$ of 0.5 to 5 dl/g when measured in a solvent of tetralin at 135°C .

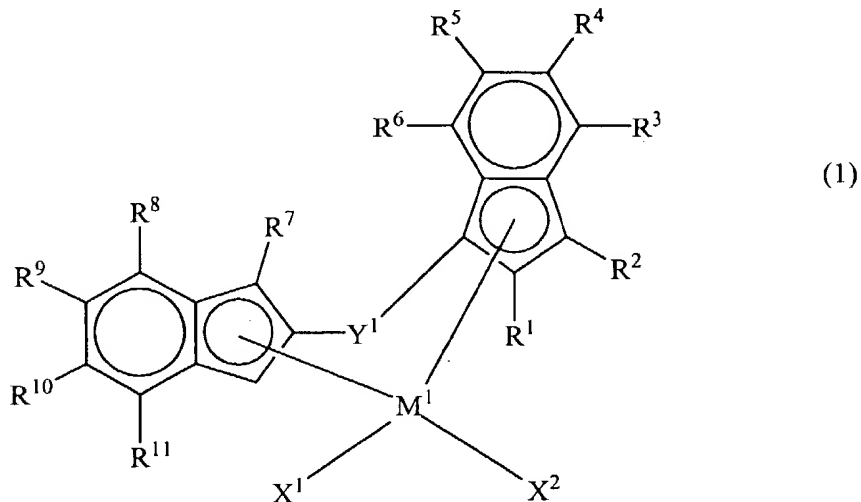
Claims 2-11 (Cancelled).

Claim ~~12~~² (Previously Presented): The propylene polymer as claimed in claim 1, which is a propylene homopolymer having an isotactic pentad fraction (mmmm) of from 65 to 85 mol%.

Claim ~~13~~³ (Previously Presented): The propylene polymer as claimed in claim 1, which is a propylene homopolymer having an isotactic pentad fraction (mmmm) of from 70 to 80 mol%.

Claim ~~14~~⁴ (Previously Presented): A molding obtained by molding the propylene polymer of claim 1.

Claim ~~15~~⁵ (Previously Presented): A method for producing the propylene polymer of claim 1, which comprises polymerizing propylene or propylene with ethylene and/or an α -olefin having from 4 to 20 carbon atoms, in the presence of an olefin polymerization catalyst that contains (A) a transition metal compound of the Group 4 of the Periodic Table represented by the following general formula (1), and (B) at least one compound selected from the group consisting of (B-1) aluminiumoxy compounds and (B-2) ionic compounds, the ionic compounds being capable of reacting with the transition metal compound to give cations:



wherein R^8 and R^{11} are each hydrogen, R^1 to R^7 , R^9 to R^{10} , and X^1 and X^2 each independently represent a hydrogen atom, a halogen atom, a hydrocarbon group having from 1 to 20 carbon atoms, a halogen-containing hydrocarbon group having from 1 to 20 carbon atoms, a silicon-containing group, an oxygen-containing group, a sulfur-containing group, a nitrogen-containing group, or a phosphorus-containing group; R^3 and R^4 , and R^8 and R^9 may be bonded to each other to form a ring; Y^1 is a divalent bridging group that bridges the two ligands, representing any of a hydrocarbon group having from 1 to 20 carbon atoms, a halogen-containing hydrocarbon group having from 1 to 20 carbon atoms, a silicon-containing group, a germanium-containing group, a tin-containing group, -O-, -CO-, -S-, -SO₂-, -NR¹²-, -PR¹²-, -P(O)R¹²-, -BR¹²- or -AlR¹²-; R¹² represents a hydrogen atom, a halogen atom, a hydrocarbon group having from 1 to 20 carbon atoms, or a halogen-containing hydrocarbon group having from 1 to 20 carbon atoms; M¹ represents titanium, zirconium or hafnium.

Claim 16 (Cancelled).

Claim ~~17~~⁶ (Previously Presented): The method for producing the propylene polymer as claimed in claim ~~15~~⁵, wherein propylene or propylene with ethylene and/or an α -olefin having from 4 to 20 carbon atoms is polymerized in a vapor phase.

Claim ~~18~~⁷ (Previously Presented): The method for producing the propylene polymer as claimed in claim ~~15~~⁵, wherein propylene or propylene with ethylene and/or an α -olefin having from 4 to 20 carbon atoms is polymerized in the presence of liquid propylene.